MASTER OF SCIENCE IN CYBERSECURITY

The Master of Science in Cybersecurity degree program requires 32 credit hours of coursework (including a 5 credit practicum project course). Two of the core courses, which students in each specialization will take, will provide a broad overview of technology and policy dimensions of cybersecurity. The third flexible core course will provide breadth because it must come from a specialization separate from the one in which a student is enrolled. Finally, a practicum project (5 credit hours) with common learning objectives across all participating units will be a core requirement. Each participating unit will decide required and elective courses for the MS Cybersecurity degree specialization offered by it (a total of 18 credit hours). These requirements have been defined by the participating units and are described in the next section.

Although all three participating schools will offer a single degree, MS Cybersecurity, the focus of the degree will depend on the specialization defined by the offering unit. In particular, each unit will offer the following specializations for the MS degree in Cybersecurity.

- The School of Computer Science (CS) offers the MS Cybersecurity degree with an information security specialization.
- The School of Electrical and Computer Engineering (ECE) offers the MS Cybersecurity degree with cyber-physical systems specialization.
- The School of Public Policy (PUBP) offers the MS cybersecurity degree with a policy specialization.

### Program of Study

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Core Courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS 6035</td>
<td>Introduction to Information Security</td>
<td>3</td>
</tr>
<tr>
<td>PUBP/CS/MGT 6725</td>
<td>Information Security Policies and Strategies</td>
<td>3</td>
</tr>
<tr>
<td>CS/ECE/PUBP 6727</td>
<td>Cyber Security Practicum</td>
<td>5</td>
</tr>
<tr>
<td>Elective course</td>
<td>CS/PUBP/ECE 6000-level</td>
<td>3</td>
</tr>
<tr>
<td>Specialization Requirements (see below for specialization specific requirements)</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Total Credit Hours</td>
<td></td>
<td>32</td>
</tr>
</tbody>
</table>

### GPA/Grade Requirements:

- Students must achieve a grade-point average of at least 3.0 to graduate
- No course grades below ‘C’ will count toward graduation
- Students must take all master’s degree coursework on a letter-grade basis

### Information Security Specialization:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 6260</td>
<td>Applied Cryptography</td>
<td>3</td>
</tr>
<tr>
<td>CS 6238</td>
<td>Secure Computer Systems</td>
<td>3</td>
</tr>
<tr>
<td>CS 6262</td>
<td>Network Security</td>
<td>3</td>
</tr>
<tr>
<td>CS 6265</td>
<td>Information Security Laboratory</td>
<td>3</td>
</tr>
</tbody>
</table>

Select two courses:

- CS 6210 Advanced Operating Systems
- CS 6250 Computer Networks
- CS 6255 Principles of Network Management
- CS 6300 Software Development Process
- CS 6310 Software Architecture and Design
- CS 6340 Advanced Topics in Software Analysis and Testing
- CS 6365 Intro Enterprise Comput.
- CS 6390 Programming Language Design
- CS 6400 Database Systems Concepts and Design
- CS 6675 Advanced Internet Computing Systems and Applications
- CS 7210 Distributed Computing
- CS 7230 Systems Software Design, Implementation, and Evaluation
- CS 7250 Internetworking Architectures and Protocols
- CS 7270 Networked Applications and Services
- CS 7292 Reliability and Security in Computer Architecture
- CS 8803 Mobile Applications and Services

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</thead>
<tbody>
<tr>
<td>ECE 6320</td>
<td>Power Systems Control and Operation</td>
<td>3</td>
</tr>
<tr>
<td>ECE 8813</td>
<td>Special Topics (Introduction to Cyber-Physical Electric Energy Systems)</td>
<td>3</td>
</tr>
<tr>
<td>ECE 8813</td>
<td>Special Topics (Introduction to Cyber-Physical Systems Security)</td>
<td>3</td>
</tr>
<tr>
<td>ECE 8803</td>
<td>Special Topics (Computational Aspects of Cyber-Physical Systems or Cyber Physical Design and Analysis)</td>
<td>3</td>
</tr>
</tbody>
</table>

Select two courses:

- ECE 6550 Linear Systems and Controls
- ECE 6607 Computer Communication Networks
- ECE 6615 Sensor Networks
- ECE 6102 Dependable Distributed Systems
- ECE 6323 Power System Protection
- ECE 8813 Special Topics (Advanced Computer Security)
- ECE 8813 Special Topics (Network Forensics)
- ECE 8813 Special Topics (Smart Grids)
- ECE 8803 Special Topics (Advanced Topics in Malware)
- ECE 8873 Special Topics (Advanced Hardware Oriented Security and Trust)

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>PUBP 6502</td>
<td>Information and Communications Technology Policy</td>
<td>3</td>
</tr>
<tr>
<td>MGT 6726</td>
<td>Privacy, Technology, Policy, and Law</td>
<td>3</td>
</tr>
</tbody>
</table>

### Policy Specialization:

Select 4 courses:

- PUBP 6502 Information and Communications Technology Policy
- MGT 6726 Privacy, Technology, Policy, and Law
Master of Science in Cybersecurity

PUBP 6111 Internet and Public Policy
INTA 6014 Scenario Writing and Path Gaming
INTA 8803 Special Topics (Data Analytics and Security)
INTA 8803 Special Topics (Challenge of Terrorism in Democratic Societies)
PUBP 6501 Information Policy and Management

Select two courses: 6
    PUBP 6701 Energy Technology Policy
    PUBP 6014 Organization Theory
    PUBP 6401 Science, Technology, and Public Policy
    INTA 6103 International Security
    INTA 6015 Technology and Military Organizations

Total Credit Hours 18

The Master of Science in Cybersecurity is also offered online.

For more information, visit: Online Master of Science in Cybersecurity (https://pe.gatech.edu/degrees/cybersecurity/).